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Job No.: CECTC/BBMP/KRIDL/W.No.14/2017-18 Date : 23.06.2017

ATTERBERG LIMITS TEST FOR GSB (COARSE GRADED)
IS : 2720 (Part - 5)

Client : **Assistant Executive Engineer,** Dasarahalli Sub Division, BBMP, Bangalore.

Agency : **Technical Manager (West),** KRIDL, Bangalore.

Name of work : Improvements to roads & drains at Navy Layout in Bagalagunte in Ward No.14 T.Dasarahalli Sub Division, BBMP, Bangalore.

Reference : BBMP/EE/DD/WO/124/2017-18 Dated: 21.06.2017

Date of Testing : 23.06.2017

As per MORTH Table : 400-01

Sl. No.	Particulars	Test Results	Standards as per Specifications
1	Liquid Limit, %	22.00	25.0% Maximum.
2	Plasticity Index, %	Non Plastic	6.0% Maximum.

Note:

1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory.
3. Any Query regarding the report must be reported within 30 days from the date of testing.

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02.06.2015

Job No.: CECTC/BBMP/KRIDL/W.No.14/2017-18

DETERMINATION OF FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

Client	**Assistant Executive Engineer,** Dasarahalli Sub Division, BBMP, Bangalore.
Agency	**Technical Manager (West),** KRIDL, Bangalore.
Name of Work	Improvements to roads & drains at Navy Layout in Bagalagunte in Ward No.14 T.Dasarahalli Sub Division, BBMP, Bangalore.
Reference	BBMP/EE/DD/WO/124/2017-18 Dated: 21.06.2017
Technical Reference	IS 2386(Part 1) 1963 (RA 2011)
Type of Mix	Wet Mix Macadam
Sample ID	WMM Layer
Date of Testing	02.06.2015

Result : Flakiness Index = **11.85%**

Elongation Index = **13.54%**

Result : Combined Flakiness & Elongation index 25.39%

Comments:

Maximum allowable Flakiness & Elongation Index for Wet Mix Macadam is 30%

Note:

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Job No.: CECTC/BBMP/KRIDL/W.No.14/2017-18

Date: 26.06.2017

TEST REPORT

Client	:	**Assistant Executive Engineer,** Dasarahalli Sub Division, BBMP, Bangalore.
Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
Name of work	:	Improvements to roads & drains at Navy Layout in Bagalagunte in Ward No.14 T.Dasarahalli Sub Division, BBMP, Bangalore.
Reference	:	BBMP/EE/DD/WO/124/2017-18 Dated: 21.06.2017
Source of location	:	Hot mix Plant, Bangalore
Date of testing	:	26.06.2017

The results of the tests conducted on the bitumen sample using for Bituminous Macadam

Sl. No	Description	Test Result	Requirement as per IS:73:2013
1	Penetration at 25 ^{0}C, 1/10 mm	67	60 to 70
2	Softening point, ^{0}C	49	Min. 45
3	Ductility at 27^{0}C, cm	100 >	Min. 50
4	Flash Point, ^{0}C	288	Min. 220

Note:

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Job No.: CECTC/BBMP/KRIDL/W.No.14/2017-18

28.06.2017

DETERMINATION OF FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

Client	**Assistant Executive Engineer,** Dasarahalli Sub Division, BBMP, Bangalore.
Agency	**Technical Manager (West),** KRIDL, Bangalore.
Name of Work	Improvements to roads & drains at Navy Layout in Bagalagunte in Ward No.14 T.Dasarahalli Sub Division, BBMP, Bangalore.
Reference	BBMP/EE/DD/WO/124/2017-18 Dated: 21.06.2017
Technical Reference	IS 2386(Part 1) 1963 (RA 2007)
Type of Mix	Bituminous Concrete
Date of Testing	28.06.2017

Result : Flakiness Index = **12.63%**

Elongation Index = **14.09%**

Result : Combined Flakiness & Elongation index **26.72%**

Comments:

→ Maximum allowable Flakiness & Elongation Index for Bituminous Concrete is 30%

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Job No: CECTC/BBMP/KRIDL/W.No.14/2017-18 Date 29.06.2017

BITUMEN CONTENT AND GRADATION DETERMINATION OF BITUMINOUS CONCRETE AASHTO T 164 & AASHTO T 30

CLIENT	**Assistant Executive Engineer,** Dasarahalli Sub Division, BBMP, Bangalore.
AGENCY	**Technical Manager (West),** KRIDL, Bangalore.
NAME OF THE WORK	Improvements to roads & drains at Navy Layout in Bagalagunte in Ward No.14 T.Dasarahalli Sub Division, BBMP, Bangalore.
REFERENCE	BBMP/EE/DD/WO/124/2017-18 Dated: 21.06.2017
SAMPLE I/D	Sample Supplied by Agency
DATE OF TESTING	29.06.2017

BITUMEN CONTENT DETERMINATION

Description	Sample 1	Sample 2
1. Weight of Mixture before Test, g	500	500
2. Weight of Mixture after Test, g	469	470
3. Weight of Asphalt and Mineral matter Extracted, g	31	30
4. Weight of Mineral Matter, g.	-	-
5. Weight of Ash, g	-	-
6. Weight of Bitumen Extracted, g. (corrected)	31	30
7. Bitumen content in %	6.20	6.00
8. Average	6.10	

GRADATION AFTER EXTRACTION

TABLE - 1

Sieve size in mm	Percent Passing, %		Specified Limits as per MORTH specification table 500-18 (Grading-2)
	Sample 1	Sample 2	
19	100.00	100.00	100
13.2	92.36	91.22	90-100
9.5	81.45	82.47	70-88
4.75	55.26	52.14	53-71
2.36	46.90	47.50	42-58
1.18	40.60	41.90	34-48
0.6	32.10	33.65	26-38
0.3	25.65	26.36	18-28
0.15	18.25	17.48	12-20
0.075	5.23	5.06	4-10

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